

REMARKS

Reconsideration is requested for claims 1-36 and 115. Claims 1-58 and 114-115 are under consideration. Claims 53-58 have been allowed.

Initially, the undersigned wishes to thank Examiner Semunegus for her time, attention, and consideration during the interview at the U.S. Patent and Trademark Office in connection with related Application No. 09/832,020 on January 16, 2002, during which the present application was also discussed.

In the Official Action claims 1-5, 20, 114-115 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,259,288 to *Vatsvog* in view of U.S. Patent No. 4,809,612 to *Ballreich et al.* Claims 6-19, 21-36, and 38-52 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Vatsvog* and *Ballreich et al.* in view of U.S. Patent No. 3,144,827 to *Boutwell*.

During the interview, it was explained that the applied references do not disclose or suggest an ammunition article wherein a cartridge casing body is injection molded around at least a portion of a projectile as claimed in claim 1. Similar language is recited in claim 114. In a telephone message subsequent to the interview, the Examiner advised that the rejections based on the references listed above will be withdrawn. However, the Examiner indicated that another reference, U.S. Patent No. 2,862,446 to *Ringdal*, appeared to disclose an ammunition article as claimed.

Ringdal discloses a very specific cartridge structure with a case having a front end constructed in such a way that a secure anchoring of a projectile in the front end is provided. Col. 1, lines 24-28. The cartridge includes a projectile 7 moulded or cast in the

front end 3' of a plastic cartridge case 3 as the case is moulded in one piece. The cartridge includes a radial partition wall 6 that separates the rear portion of the case 3 from a front portion in which the projectile 7 is secured. The projectile 7 is secured to the case 3 by means of a bead or flange 8 that engages a corresponding groove in the projectile, and the rear end 9 of an envelope of the projectile is bent in and moulded into the partition wall.

In summary, the invention of *Ringdal* is a cartridge having a two-piece projectile assembly including the projectile 7 having an envelope. The envelope is required so that the projectile 7 is secured in the case 3. When the cartridge is fired, the projectile 7, the envelope, and the radial partition wall 6 in which the rear end 9 of the envelope is embedded are blown out together. Col. 2, lines 25-27.

Independent claims 1 and 114 have been amended to clarify that an ammunition article includes a plastic cartridge casing injection molded around at least a portion of a *one-piece* projectile. *Ringdal* discloses a case having a front end 3' wherein plastic is molded around a portion of a two-piece projectile (the projectile 7 and its envelope 9) and the projectile is only properly secured in place because the end 9 of the envelope of the projectile is bent over and embedded in the radial partition wall. Thus, *Ringdal* does not anticipate claims 1 or 114.

One skilled in the art would not have modified *Ringdal* to injection mold plastic around at least a portion of a one-piece projectile to form a plastic cartridge casing body because to do so would destroy the invention of *Ringdal* for its intended function – to secure a projectile in a plastic case by embedding the bent rear end of the envelope of the projectile in a radial partition wall. *See, e.g.*, Claim 1 (describing the structure of the

claimed invention as including a projectile comprising an envelope with a rear end that is flanged and embedded in a radial partition wall). It is, of course, impermissible to modify a reference so that it is destroyed for its intended function.

In summary, it is respectfully submitted that, in addition to the claims being patentably distinguishable over the references cited in the September 5, 2002, Official Action, claims 1 and 114 and the claims dependent therefrom are not anticipated by and define patentably over *Ringdal*, whether considered by itself or in combination with other references.

Claim 21 defines an ammunition article, comprising a cartridge casing body having a first end and a second end, a projectile attached to the first end of the cartridge casing body, and a single piece, injection molded plastic base, the base being injection molded around the second end of the cartridge casing body.

As discussed at the interview, none of the references cited in the Official Action discloses injection molding any portion of an ammunition article. *Ringdal* does not disclose a base that is injection molded around the second end of the cartridge casing body. Accordingly, it is respectfully submitted that claim 21 and the claims dependent therefrom are not anticipated by and define patentably over the prior art.

With respect to the rejection of claims 38-52 under 35 U.S.C. § 103(a) as being unpatentable over *Vatsvog* and *Ballreich et al.* in view of U.S. Patent No. 3,144,827 to *Boutwell*, independent claims 38 and 39 have been amended to recite that the ammunition article includes "an injection molded plastic cartridge casing body". None of the applied references discloses any injection molded structures. The blank cartridge disclosed in

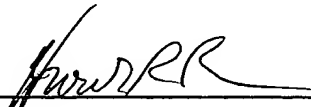
Boutwell is not believed to be injection molded but, rather, formed by a molding procedure involving the use of molding compound comprising elongated granules of approximately 1/16 to 1/8 inch in diameter. Col. 2, lines 21-24. *Ringdal* does not, of course, disclose a blank-type ammunition article.

It is respectfully submitted that all of the presently rejected claims, claims 1-36, 38-52, and 114-115, are in condition for allowance. Claims 53-58 have been allowed. Allowance is cordially urged.

If the Examiner should be of the opinion that a telephone conference would be helpful in resolving any outstanding issues, the Examiner is urged to contact the undersigned.

Respectfully submitted,

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APPENDIX

Kindly amend the claims as follows:

1. (Twice Amended) An ammunition article, comprising:

an injection molded plastic cartridge casing body having a first end and a second end; and

a one-piece projectile attached to the first end of the cartridge casing body,

wherein the cartridge casing body is injection molded around at least a portion of the projectile.

38. (Twice Amended) An ammunition article, comprising:

[a] an injection molded plastic cartridge case body having a closed front end and a second end, wherein the closed front end includes walls that reduce in thickness toward an axial center of the closed front end.

39. (Twice Amended) An ammunition article, comprising:

[a] an injection molded plastic cartridge case body having a closed front end and a second end, wherein the closed front end includes at least one stress concentrator for causing, preferential tearing of the closed front end at the at least one concentrator.

114. (Twice Amended) An ammunition article comprising:

a one-piece projectile having cannellure contours; and

a molded cartridge casing body injection molded around at least a portion of the projectile such that a portion of a wall of the cartridge casing body follows the cannellure contours of the projectile.